EMCSF 19.8.2
9/19/02

September 19, 2002
B-09075-0144-0110
REPA3-0110-005

Ms. Amberet Green
USEPA, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Subject: EPA Contract No. 68-W-02-022, Work Assignment R10210
Technical Review of Sampling and Analysis Plan and Draft Remedial Action Work Plan, Simplot Superfund Site, Pocatello, Idaho

Dear Ms. Green,

In response to Work Assignment R10210, under EPA Contract No. 68-W-02-022, attached please find the Booz Allen Hamilton Inc. technical review of the Sampling and Analysis Plan, and the Draft Remedial Action Work Plan for the excavation and solids removal at the Dewatering Pit, Simplot Plant Area, Eastern Michaud Flats Superfund Site. These reports were dated August 19 and August 1, 2002, respectively.

Although the two documents do an adequate job of describing the proposed work, they are deficient in several areas. Specifically, while it is understood that the collection of samples for the purposes of waste profiling are not typically subjected to the same rigorous quality criteria as data for site characterization or risk assessment, the documents should still thoroughly define the control measures that will be utilized during the project. In general, both documents lack a sufficient discussion of the quality assurance criteria that will be used. In addition, the work plan proposes that confirmation soil samples be analyzed for zinc only as an indicator of when remedial action objectives have been achieved. However, it is suggested that all inorganic contaminants of concern, including risk-driving metals such as arsenic and beryllium, be added to the list of target analytes.

If you have any comments regarding this review, please contact me at (206) 386-4791.

Sincerely,

Pat Shanley
Region 10 Manager

BOOZ ALLEN HAMILTON, INC

CC: Linda Meyer, EPA Work Assignment Manager
Valoree Lilley, EPA Contracting Officer (cover letter only)
Ed Greutert, BAH Work Assignment Manager
BAH PMT QA/QC Coordinator

TECHNICAL REVIEW
REPA3-0110-005

DEWATERING PIT SAMPLING AND ANALYSIS PLAN (SAP) TO SUPPORT REMEDIAL DESIGN SIMPLOT PLANT AREA EASTERN MICHAUD FLATS SUPERFUND SITE POCATELLO, IDAHO

August 19, 2002

General Comments

1. As described in the comments below, the SAP (and the Draft Remedial Action Work Plan) generally lacks a thorough description of the quality assurance/quality control (QA/QC) measures that will be exercised throughout the project. While the collection of environmental samples for the purposes of waste profiling for proper disposition is typically not subjected to the same rigorous QA/QC criteria as data collected for site characterization or risk assessment purposes, it is still necessary to define the control measures that will be utilized.

2. The project description in the SAP should be expanded to provide more detail regarding the sampling event. Specifically the following information should be included in the SAP:

   - A project schedule, identifying all project milestones;
   - A rationale for the selection of the sampling locations;
   - Any field screening to be performed (if applicable);
   - A summary table listing the total number of samples (including investigative, quality control, and split).

3. The introduction to the SAP is overly brief and should be revised to provide more detail. It is recommended that a brief summary indicating events leading up to the current sampling event and the facility's regulatory status be included in the introduction to the SAP. Documentation (or references to documentation of waste streams managed), releases known to have occurred on-site, any previous sampling and analysis efforts, data overview of these results or copies of these previous reports should be appended, referenced or summarized in the SAP. Site histories provide critical information to the end user and allows an understanding of the rationale for the selection of analytical parameters, and sample location and frequency. For example, Section 3.0 of the SAP references information from an "inspection" for the deterioration of the sampling depth; however since the information from this "inspection" has not been submitted, then the proposed sample depths provided cannot be verified. At a minimum, the SAP should be revised to clearly state that the samples will be collected to characterize the wastes for disposal.

4. The SAP should be revised to identify key personnel and to provide a discussion on the project organization and responsibilities associated with the sampling event at the dewatering pit. Specifically the SAP should include the following information:

   - Management responsibilities of all managers who are directly responsible in the project decision-making process;
   - Quality assurance (QA) responsibilities of all personnel responsible for data validation, data assessment, database management and audits, should be identified;
   - Field responsibilities of all field personnel should be outlined including the person who is responsible for identifying and documenting nonconformances through corrective action;
   - Laboratory responsibilities of the laboratory point of contact who is responsible for the oversight of the sample analysis.
   - A project organization diagram that includes all personnel with responsibilities in the project and indicates the lines of authority and communication.

5. The SAP should be revised to provide a more detailed discussion of the quantitative QA objectives for the project. Indicate how data precision, accuracy, completeness, representativeness, and comparability will be measured. This should include a discussion of the field QA as well as the laboratory QA parameters, including the corrective actions for non-compliant QA parameters. Specifically, the SAP should be revised to include a table with all of the control limits for all quality control (QC) samples (e.g., calibrations, matrix spikes/matrix spike duplicates, etc.) For all analytes to be quantitated.

6. The SAP should be revised to specifically reference the Standard Operating Procedures (SOPs) in the text of the SAP. Throughout the SAP, the text makes generic references such as, "See the SOP in Appendix A". However, there are multiple SOPs submitted in Appendix A. The SAP should be revised to specifically address SOPs by number in the text.

Specific Comments

Section 2.2 Identify the Decision

Since acidic wastes were originally placed into the pit, excavated material should also be tested for the characteristic of corrosivity (by Method 9040) to determine if the wastes are RCRA hazardous (40 CFR 261.22).

Section 3.0 Sample Collection

The description of the sampling procedures is a critical portion of the SAP, but this section lacks sufficient detail. This section of the SAP should be revised to provide detailed, stepwise sampling procedures. Specifically, each sampling procedures should include the following:

- All equipment necessary to sample the matrix;
- Clarification as to whether a standard EPA method will be used for collection;
- Detailed, "cookbook" procedures to collect investigative samples;
- Description of the sample containers to be used, including the container volumes, and the number of containers required for each analysis;
- Indication of the volume of each grab sample to be taken; and,
- Assurance that contaminant-free sample containers will be used, including a description of how such containers will be obtained.

Section 4.1 Sample Collection

This section of the SAP states that "Once all of the samples from an individual pit are collected the sample will be throughly mixed in the bowl and at least 500 grams placed in a plastic zip-lock bag." Clarify this statement, and justify using a "plastic zip-lock bag " as the sample container. Indicate how such bags are ensured "contaminant-free" prior to sampling. The SAP should be revised to identify the sample containers (polyethylene or glass for metals), along with the container volume.

The text in this section also states that "Immediately following sample collection, samples will be labeled and prepared for shipment to the analytical laboratory" and refers to an SOP in Appendix A. However, SOP No. 2 in Appendix A does not discuss how the individual samples will be labeled. Revise the SAP to discuss all sample labels or tags that will accompany each sample container. This ensures that if the chain-of-custody becomes separated from the samples that samples can be identified by the sampling and analysis teams. Each sample label should include the field sample number, location, date/time of collection, type of preservation (if any), and type of analysis.

Table 2 Analytical Methods, Sampling Preservation and Holing Times

The following should be addressed in Table 2 of the SAP:

- The most recent updates of each analytical method should be used, or rationale should be provided for using otherwise. Specifically, the table should be revised to identify "6010B" for the analysis of arsenic, barium, cadmium, chromium, lead, selenium, and silver and "7470A" for the analysis of mercury.
- The holding time requirements for TCLP metals extraction (180 days to extraction of the samples).

Section 5.2 Field Quality Control Procedures

The text of this section states that "a duplicate sample will be collected from either the East or West Dewatering Pit cells." The SAP should clearly identify all samples and the

locations to be sampled. Revisions to the SAP should identify which of Dewatering Pit Cells will be sampled.

The SAP also states that the control limit for duplicate analysis is 30 percent. Indicate how this relative percent difference (RPD) limit was determined.

Section 5.3 Laboratory Quality Control

The first paragraph of this section indicates that the laboratory will perform the analyses according to the referenced methods and will operate under an "internal Quality Assurance Management Plan." The SAP should be revised to include this plan and ensure that the laboratory will be able to meet the quality assurance requirements outlined in the plan.

The last paragraph of Section 5.3 states that "Any data not meeting the quality requirements of this plan will be flagged to identify them to data users and are appropriately qualified." Clarify this statement and revise the SAP to identify the person responsible for ensuring that the quality requirements are met and provide definations of the flags and qualifiers to be used on the data.

Section 5.5 Data Reduction and Validation

The SAP should be revised to provide the specific data reduction procedures for all laboratory data. At a minimum, the reduction procedures discussed in the analytical methods may be referenced.

The SAP should be revised to clarify if data validation will be performed. If the results are to determine whether the samples are RCRA hazardous for disposal purposes, a formal validation is not necessary. However, if data validation is to be performed, then the SAP should be revised to provide more detail on these validation procedures. For example, it is unclear who will perform the data validation on the sample data. It is also unclear what specific criteria will be used to evaluate the data (simply accessing accuracy is insufficient). Specifically, the SAP should be revised to include the following information:

- Specification of the verification process of every quality control measure used in the field and laboratory (i.e., calibration, blanks, duplicates, etc.);
- The percentage of data to be validated and who will perform the validation;
- A definition of all qualifiers used in validation; and,
- Contents of a validation report.

The last bullet in Section 5.5 states that if data "error or deficiencies are found, the laboratory and/or field sampler will be contacted and the appropriate corrective action will be taken." The SAP should be revised to clarify this statement. Indicate how

corrective action may be taken by the field sampling team when all data has been analyzed and evaluated. Indicate who determines the "appropriate" corrective action. Lastly, ensure that any such procedures are documented and submitted with the project files.

The last sentence of Section 5.5 states that "When the review is completed and it is determined that the data are complete and reasonable, the results will be reported to the Agencies." This sentence should be clarified. Since data completeness has not been defined in the SAP, indicate how completeness is determined and measured. Additionally, clearly define what is determined to be "reasonable." Finally, identify the "Agencies" that will receive the reports (e.g., state, federal, tribal).

Section 6.0 Reporting

Section 6.0 of the SAP should be revised to discuss the specific data deliverables that will be included in the "monthly progress report." Also, indicate who will receive these progress reports. Finally, indicate if a "final report" will be submitted and if so, identify the contents of such a report as well as a list of the recipients.

Appendix A

SOP No. 2.

Section 2.1 Packaging Materials

This section of the SOP states that "coolers or other shipping containers" may be used. The SAP should indicate what these other shipping containers may be and ensure that such containers insulate and maintain the samples to proper temperatures.

Section 2.6 Documentation and Records Management

The SAP should be revised to indicate the location of the project files and how long the project files will be maintained. Ensure that any project files will be offered to the U.S. EPA prior to disposal.